

5. (Amended.) The method according to claim 1, wherein the altered property is an improved thermostability as defined by an increased half-life ( $T_{1/2}$ ) of at least about 5% in the “ $T_{1/2}$  assay for liquefaction” described herein, using a pH of 5.0 and a temperature of 95°C.

6. (Amended.) The method according to claim 1, wherein the altered property is an improved thermostability as defined by an increased residual enzyme activity of at least about 5% in the “assay for residual activity after liquefaction” described herein, using a pH of 5.0 and a temperature of 95°C.

7. (Amended.) The method according to claim 1, wherein the altered property is an improved thermostability as defined by an increased half-life ( $T_{1/2}$ ) of at least about 5% in the “ $T_{1/2}$  assay for saccharification” described herein, using a pH of 4.5 and a temperature of 70°C.

8. (Amended.) The method according to claim 1, wherein the altered property is an improved thermostability as defined by an increased residual enzyme activity of at least about 5% in the “assay for residual activity after saccharification” described herein, using a pH of 4.5 and a temperature of 63°C.

20. (Amended.) A method according to claims 1, 10 or 16, wherein the parent pullulanase has more than 40% homology with the amino acid sequence shown in SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 5.

22. (Amended.) A method for producing a pullulanase variant, the method comprising:

- a) constructing the variant by the method according to claim 10;
- b) transforming a microorganism with a DNA sequence encoding the variant;
- c) cultivating the transformed microorganism under conditions which are conducive for producing the variant; and
- d) optionally, recovering the variant from the resulting culture broth.